

UNCLASSIFIED

AD NUMBER

AD867094

LIMITATION CHANGES

TO:

Approved for public release; distribution is unlimited. Document partially illegible.

FROM:

Distribution authorized to U.S. Gov't. agencies and their contractors;
Administrative/Operational Use; 15 NOV 1969.
Other requests shall be referred to Assistant Chief of Staff Force Development (Army), Attn: FOR-OT-UT, Washington, DC 20310. Document partially illegible.

AUTHORITY

AGO D/A ltr, 29 apr 1980

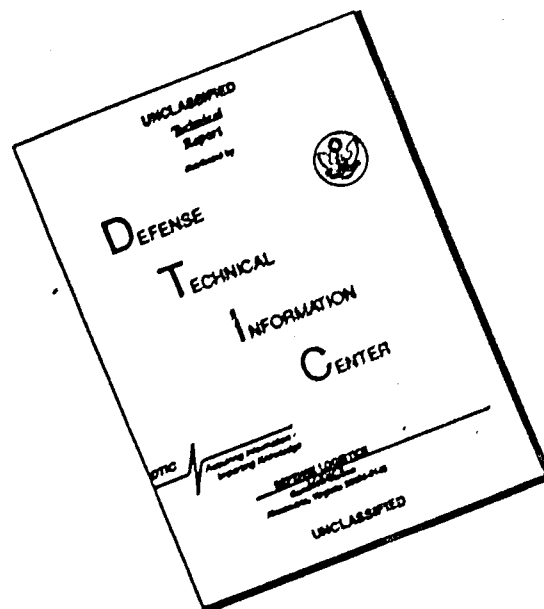
THIS PAGE IS UNCLASSIFIED

THIS REPORT HAS BEEN DELIMITED
AND CLEARED FOR PUBLIC RELEASE
UNDER DOD DIRECTIVE 5200.20 AND
NO RESTRICTIONS ARE IMPOSED UPON
ITS USE AND DISCLOSURE.

✓ DISTRIBUTION STATEMENT A

APPROVED FOR PUBLIC RELEASE;
DISTRIBUTION UNLIMITED.

DISCLAIMER NOTICE



THIS DOCUMENT IS BEST QUALITY AVAILABLE. THE COPY FURNISHED TO DTIC CONTAINED A SIGNIFICANT NUMBER OF PAGES WHICH DO NOT REPRODUCE LEGIBLY.



DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL
WASHINGTON, D.C. 20310

IN REPLY REFER TO

AGDA (M) (23 Mar 70) FOR OT UT 694312

26 March 1970

SUBJECT: Operational Report - Lessons Learned, Headquarters, 92d Engineer Battalion, Period Ending 31 October 1969

AD 867094

SEE DISTRIBUTION

1. Subject report is forwarded for review and evaluation in accordance with paragraph 4b, AR 525-15. Evaluations and corrective actions should be reported to ACSFOR OT UT, Operational Reports Branch, within 90 days of receipt of covering letter.
2. Information contained in this report is provided to insure appropriate benefits in the future from lessons learned during current operations and may be adapted for use in developing training material.

BY ORDER OF THE SECRETARY OF THE ARMY:

KENNETH G. WICKHAM
Major General, USA
The Adjutant General

1 Incl
as

DISTRIBUTION:

Commanding Generals

- US Continental Army Command
- US Army Combat Developments Command
- US Army Materiel Command

Commandants

- US Army War College
- US Army Command and General Staff College
- US Army Air Defense School
- US Army Armor School
- US Army Aviation School
- US Army Engineer School
- US Army Field Artillery School
- US Army Infantry School
- US Army Institute for Military Assistance
- US Army Ordnance School
- US Army Transportation School

UNCLASSIFIED REPORT

DISTRIBUTION NO FOREIGN WITHOUT APPROVAL OF
ASSISTANT CHIEF OF STAFF FOR FORCE DEVELOPMENT
(ARMY) ATTN FOR OT UT, WASHINGTON, D.C. 20310

Protective marking cancelled when
separated from inclosure.

FOR OFFICIAL USE ONLY

Reproduced by the
CLEARINGHOUSE
for Federal Scientific & Technical
Information Springfield Va. 22151

NOTICE TO USERS

Portions of this document have been judged by the Clearinghouse to be of poor reproduction quality and not fully legible. However, in an effort to make as much information as possible available to the public, the Clearinghouse sells this document with the understanding that if the user is not satisfied, the document may be returned for refund.

If you return this document, please include this notice together with the IBM order card (label) to:

Clearinghouse
Attn: 152.12
Springfield, Va. 22151

DEPARTMENT OF THE ARMY
HEADQUARTERS, 92D ENGINEER BATTALION
APO 96491

EGBD-CP

15 November 1969

SUBJECT: Operational Report - Lessons Learned, 92D Engineer Battalion
(Construction), Period Ending 31 October 1969, RCS CSFCR - 65 (R2)

THRU: Commanding Officer, 159th Engineer Group, ATTN: EGB-CP, APC 96491
Commanding General, 20th Engineer Brigade, ATTN: AVBI-COS, APC 96491
Commanding General, United States Army, Vietnam, ATTN: AVHGG(DST),
APO 96375
Commander in Chief, United States Army, Pacific, ATTN: GPCP-DT,
APO 96588

TO: Assistant Chief of Staff for Force Development Department of the Army
(ACSFOR DA) Washington, D.C. 20310

Section 1. Operations: Significant Activities

1. Command: LTC William A. Anderson commanded the 92nd Engineer Battalion during the reporting period.

2. Personnel Administration, Morale and Discipline:

a. The 92nd Engineer Battalion Headquarters and Headquarters Company is organized under MTOE 5-116G, strength b; A Company under MTOE 5-117G, strength b; and Companies B, C, and D under MTOE 5-118G, strength b. The 41st Engineer Company (Port Construction) and the 497th Engineer Company (Port Construction) are organized under MTOE 5-129G and were attached by the 159th Engineer Group General Orders Number 34, dated 18 December 1967, and Number 9, dated 13 February 1969, respectively. The 497th Engineer Company (Port Construction) was detached on 1 September 1969 by 20th Engineer Brigade General Order Number 2876, dated 29 July 69. The 100th Engineer Company (FB) is organized under MTOE 5-78G and was attached by 159th Engineer Group General Order Number 43, dated 17 August 1969.

b. The battalion and attached units had a total of 126 gains and 217 losses in personnel during the reporting period. The forecast rotational rates are 8.1% for November, 8.1% for December, and 14.1% for January.

FOR OT UT
694312
Inclosure

1

FOR OFFICIAL USE ONLY

MCBD-OP

SUBJECT: Operational Report - Lessons Learned, 92D Engineer Battalion
(Construction), Period Ending 31 October 1969, RCS CSFOR - 65 (R2)

c. Personnel Strengths Chart:

(1) 31 August 1969:

<u>UNIT</u>	<u>OFF</u> <u>Auth/Asg</u>	<u>WO</u> <u>Auth/Asg</u>	<u>EM</u> <u>Auth/Asg</u>	<u>TOTAL</u> <u>Auth/Asg</u>
92D	33/31	7/7	680/673	720/711
41st	9/8	1/1	218/184	228/193
497th	9/9	1/1	218/168	228/178

(2) 30 September 1969:

92D	33/32	7/7	682/641	722/680
41st	9/9	1/1	218/180	228/190
100th	7/6	1/1	216/181	224/188

(3) 31 October 1969:

92D	33/33	7/7	691/632	731/672
41st	9/9	1/1	218/185	228/195
100th	7/7	1/1	216/171	224/179

d. Morale has been excellent during the entire quarter. There were 103 foreign service tour extensions approved during the reporting period; 55 of these were for an additional six months. The Battalion had 65.8% participation in the Savings Bond Program and 9.4 participation in the Soldier's Deposits Program. During the reporting period, 183 personnel participated in the Rest and Recuperation Program. The Awards Program has been emphasized and a total of 93 medals were presented.

e. Most disciplinary problems were resolved under Article 15, UCMJ. There were 119 Article 15's administered, two Summary Courts-Martial, twelve Special Courts-Martial, and no General Courts-Martial.

3. Intelligence: On 6 October 1969 at the Trang Bom Tank Range jobsite (YT 2013), engineers from B/92 Engr Bn, while conducting a minesweep, received semi-automatic small arms fire from an estimated enemy force of four (4) personnel who were concealed in the surrounding jungle. The ARVN Security force made a sweep of the area after the incident, but no contact with the enemy was made.

EGBD-OP

SUBJECT: Operational Report - Lessons Learned, 92D Engineer Battalion
(Construction), Period Ending 31 October 1969, RCS CSFOR - 65 (R2)

4. Operation, Plans and Training.

a. Operations/Projects completed during reporting period:

(1) Combat Support Operations:

(a) 189-5394-0-20, Bridge Support, Hat Dich, 100th Engineer Company (FB): Installed and removed 75' M4T6 Dry Span in support of the 60th Land Clearing Team. Project was started on 11 Oct 69 and completed 17 Oct 69.

(b) 189-5388-0-20, Fixed Span Support, 100th Engineer Company (FB): Installed and removed 75' Class 60 fixed dry span at YS 331884 in support of 60th Land Clearing Team. Project was started on 3 Oct 69 and completed 8 Oct 69.

(c) 189-5384-0-20, M4T6 Raft at La Nga Bridge, 100th Engineer Company (FB): Furnished M4T6 raft support at La Nga River crossing on QL 20 to cross three SP 155 howitzers. Project was started on 25 Sep 69 and completed 27 Sep 69.

(d) 143-5390-0-20, Diver Support, 41st Engineer Company (PC): Provided divers and necessary equipment in an attempt to recover the body of a U.S. soldier drowned in a stream near Long Binh Post Perimeter. Project started 3 Oct 69 and terminated 5 Oct 69 with negative results.

(e) 112-5393-0-20, Outboard Motor Support, 100th Engineer Company (FB): Provided five (5) outboard motors in support of a 25th Infantry Division riverine operation. Project started on 9 Oct 69 and was completed 18 Oct 69.

(f) 107-5396-0-20, Boat Support, Dong Nai River, 100th Engineer Company (FB): Provided two (2) LTR pontons w/operators and outboard motors to search for seven (7) bodies. This operation was in support of the 145th Combat Aviation Battalion. Project was started on 14 Oct 69 and terminated 15 Oct 1969 with negative results.

(g) 153-5392-0-20, Diver Support, 41st Engineer Company (PC): Provided divers and equipment to recover bodies of drowned U.S. personnel. This operation was in support of 1st CAV DIV. Project was started 9 Oct 69 and terminated 12 Oct 69; diver found only one body.

FOR OFFICIAL USE ONLY

EGBD-OF

SUBJECT: Operational Report - Lessons Learned, 92D Engineer Battalion (Construction), Period Ending 31 October 1969, RCS CSFOR - 65 (R2)

(2) Operational Support Operations

(a) 246-5739-0-20, Stabilized Taxiway, Long Thanh North, Company D, 92nd Engineer Battalion: Constructed a 20' x 277' taxiway from main runway to maintenance hardstand area. M8A1 matting will be used to surface this taxiway and will be installed on self help basis. Project was started on 8 Jul 69 and completed on 18 Aug 1969.

(b) 246-5624-0-20, Airfield Defense, Long Thanh North, Company D, 92nd Engineer Battalion: Constructed and peneprimed 1200 meters of roadway; cleared 370,000 SY of scrub growth in front of perimeter berm; constructed one each 10' x 10' bunker; and upgraded 1,200 meters of berm. Project was started 8 Jul 69 and completed on 16 Sep 69.

(c) 243-5502-3-23, Security Upgrade Sanford Airfield, 497th Engineer Company (PC): Provided materials and technical assistance for the self-help construction of a 20' x 24' TOC at Sanford Army Airfield. Project was started on 22 July 69 and completed on 20 August 69.

(d) 159-68-261(c), Ong Thin FPS, 41st Engineer Company (PC): Designed and constructed a floating collar pier protective system for four piers of the Ong Thin Bridge. Aluminum hull "ping pong" balls were used to provide flotation, chain link fence and barbed tape concertina to prevent swimmer access to pier, and steel standoff piles to center the pier protective system. An extremely swift current delayed the project and it was completed 25 days behind schedule. Project was started 1 June 69 and completed 2 October 1969.

(e) 243-5546-0-20, Maintenance Facilities, 62nd Engineer Battalion (Land Clearing), Company B, 92nd Engineer Battalion: Constructed 16,000 SY of crushed rock track parking area; 2,650 SY of crushed rock trackwalk 5100 SY of concrete pads for trackwalk and maintenance stand-down building which included concrete loading ramp; graded, compacted and peneprimed approximately 36,000 SY of wheeled vehicle parking area; and erected 5005 linear feet of 6' high woven barbed wire fence with three 25' gates. Project was started 26 May 69 and completed 31 Oct 69.

(f) 243-5951-0-20, Protection for Dong Nai POL Jetty, 41st Engineer Company (PC): Designed and constructed a jetty protective system for Dong Nai POL Jetty. Project was started and completed on 6 Oct 1969.

EGBD-CP

SUBJECT: Operational Report - Lessons Learned, 92D Engineer Battalion
(Construction), Period Ending 31 October 1969, RCS CSFOR - 65 (R2)

(g) 207-5980-0-20, Dozer Support, FSB Concord, 92nd Engineer Battalion: Provided one (1) dozer w/operator for two (2) days to level an old 105mm howitzer pad. Project was started 18 October 1969 and completed 19 October 1969.

(h) 287-5781-0-20, Airfield Access Road, Vung Tau, Company D, 92nd Engineer Battalion: Constructed a 20 foot wide stabilized ramp, approximately 10 meters long leading from the access road to the parking apron and installed 40 ft of 12 inch culvert. Project was started 29 Oct 69 and completed on 31 Oct 69.

(i) 207-5902-0-20, Diver Support, Cogide, 41st Engineer Company (PC): Provided divers and equipment to recover five (5) 250 pound bombs that had fallen into the river during the unloading of an ammunition barge. Project was started on 1 Sep 69 and completed on 2 Sep 69.

(j) 207-5818-0-20, Repair Perimeter Defenses, Bien Hoa, Company B, 92nd Engineer Battalion: Levelled approximately 85 CY of earth to clear fields of fire and replaced 40 meters of double apron barbed wire. Project was started on 3 Aug 69 and completed on 10 Aug 69.

(k) 243-5847-0-20, MCA/LOC Support, Long Binh, 92nd Engineer Battalion: Provided five (5) personnel to MCA/LOC warehouse to assist in deprocessing MCA/LOC equipment. Project was started 9 Aug 69 and completed 23 Aug 69.

(l) 243-5755-0-20, Finger Road, LBP, Company B, 92nd Engineer Battalion: Earthmoving equipment hauled, spread, and compacted 5147 CY of laterite to upgrade the 1600 meter road. Two (2) culverts were installed and 1047.6 tons of 10"(-) rock and 750 tons of 2"(-) rock were hauled and compacted to provide a firm base. Project started 12 July 69 and completed 18 Aug 69.

(m) 246-5496-0-20, Bearcat Perimeter Defense, Company D, 92nd Engineer Battalion: Provided technical assistance for erection of one (1) 20 foot prefabricated metal observation tower, prefabricated eight (8) bunkers, and provided technical assistance for self-help erection of bunkers. Also conducted a safety inspection of the main bunkers around the Bearcat berm. Project was started on 23 April 1969 and completed on 27 August 1969.

ECED-OF

SUBJECT: Operational Report - Lessons Learned, 92D Engineer Battalion
(Construction), Period Ending 31 October 1969, RCS CSFOR - 65 (R2)

(n) CD 24-5859-0-20, Bunker Technical Inspection, 100th Engineer Company (FB): Shored up weakened supports in 71st Transportation Battalion Command bunker. Project was started on 26 August and completed on 10 September 1969.

(o) 277-5852-0-20, Diver Support, 497th Engineer Company (PC): Supplied divers to free 90 feet of $\frac{1}{2}$ inch chain that had become tangled around a pump. Additionally, the divers checked 140 feet of submerged pipeline for holes. Project was started 12 August 1969 and completed 13 August 1969.

(p) 273-5340-0-20, Equipment Support, 100th Advisor Team, 100th Engineer Company (FB): Provided three (3) outboard motors to the 100th Advisory Team. Project was started 22 February 1969 and completed 24 September 1969.

(q) 291-5899-0-20, MAT6 Raft Support, QL 20, Vinh Quan, 100th Engineer Company (FB): Provided one (1) five float, reinforced, MAT6 raft to support the move of heavy artillery across the La Nga River at QL 20. Project was started 3 September 1969 and completed 6 September 1969.

(r) 291-5878-2-23, Land Clearing Company Move, 92nd Engineer Battalion: Provided six (6) lowboy tractors and trailers with operators to relocate a land clearing company. Project was started on 23 August 1969 and completed on 25 August 1969.

(s) 291-5877-0-20, Vehicle Support, 100th Engineer Company (FB): Provided two (2) lowboy tractors and trailers w/operators and ten (10) bridge trucks w/operators in support of 79th Engineer Group. Project was started on 25 August 1969 and completed on 30 August 1969.

(t) 207-5493-0-20, Perimeter Tower Construction, Bien Hoa, Company B, 92nd Engineer Battalion: Repaired three (3) perimeter towers, replaced one (1) tower, and constructed one (1) tower on Bien Hoa Army Base perimeter. Project was started 6 August 1969 and completed 24 August 1969.

(u) 207-5935-0-20, Diver Support - Bien Hoa, 41st Engineer Company (PC): Provided divers and underwater cutting equipment to remove the boom from a 20 ton crane which had fallen into the Dong Nai River. Project was started on 29 September 1969 and completed on 30 September 1969.

(v) 146-5361-1-23, Land Clearing, Phu Loi, 41st Engineer Company (PC): Provided two (2) D7E dozers w/operators and one (1) 25 ton tractor and trailer to clear approximately 2,400,000 square meters of jungle. Project was started 16 August 1969 and completed 30 September 1969.

(w) 225-5925-0-20, 110' Aluminum Foot Bridge, 100th Engineer Company (FB): Provided a 110' aluminum foot bridge to 25th Infantry division. Project was started 11 September 1969 and completed 15 September 1969.

ECBD-OP

SUBJECT: Operational Report - Lessons Learned, 92D Engineer Battalion
(Construction), Period Ending 31 October 1969, RCS CSFOR - 65 (R2)

(x) 273-5936-0-20, Diver Support, Newport, 41st Engineer
Company (PC): Provided one diver and equipment for approximately 2 days to inspect underwater pilings supporting an LCM-LCU ramp at Newport. Project was started On 23 September 1969 and completed on 26 September 1969.

(y) 212-5772-0-20, LTR Ponton Support, Song Be, 100th Engineer
Company (FB): Supported the 1st Cavalry Division with one (1) each light tactical raft ponton, outboard motor, and operator for a period of 52 days. This project was started on 6 August 1969 and completed on 27 September 1969.

(z) 225-5789-0-20, Bridge Erection Boat, Tan An, 100th Engineer
Company (FB): Provided one each bridge erection boat w/operator. Project started 19 August 1969 and was completed on 13 September 1969.

(aa) 207-5928-0-20, Diver Support, Bien Hoa, 41st Engineer
Company (PC): Provided divers and equipment for inspection of a 20 ton crane which had fallen into river off a wharf. Also, inspected piles and bracing of wharf to determine if any damage was caused by falling crane. This project was started and completed on 12 September 1969.

(bb) 243-5970-0-20, 5-Float Reinforced M4T6 Raft, 100th Engineer
Company (FB): Transported, erected, operated, and recovered 5-float reinforced M4T6 raft which was erected to allow six (6) M104 self-propelled vehicles to cross La Nga River on QL 20. Project started 13 October 1969 and was completed 15 October 1969.

(cc) 212-5829-0-20, MSR Maintenance, Ben Cat. The 92nd Engineer Battalion provided equipment support to the 34th Engineer Battalion with all available 5 ton dump trucks for 15 days and with two graders and two dozers for 10 days from 25 September 1969 to 17 October 1969.

(3) MACV Support Operations:

(a) CD 87-244-01, III CTZ MACV Advisor Facilities, Company D, 92nd Engineer Battalion:

1 Long Dien: Constructed one each 20' x 24' cement block administration building w/latrine; connected water tank to latrine/shower; and provided for removal of sewage by constructing a septic tank and leaching field.

2 Dat Do: Constructed one each 20' x 40' cement block building; connected water tank to latrine/shower; and provided for the removal of sewage; constructed tower and mounted an existing water tank; constructed one each septic tank with leaching field; and constructed one each 10' x 20' cement block latrine containing three sinks, three commodes and one three head shower. Project was started 1 July 1969 and completed 15 August 1969.

ECED-OP

SUBJECT: Operational Report - Lessons Learned, 92D Engineer Battalion
(Construction), Period Ending 31 October 1969, RCS CSFOR - 65 (R2)

(b) CD 807-0301-0-01, III CTZ MACV Advisory Facilities, Cong Thanh District, Company D, 92nd Engineer Battalion: Constructed one each 10'x 12' latrine/shower, erected tower for two 600 gallon water tanks, connected water tanks to latrine/shower and existing water system, and installed cover on existing septic tank. Project started 1 August 1969 and was completed 31 August 1969.

(c) CD 887-0301-0-01, III CTZ MACV Advisor Facilities, Company D, 92nd Engineer Battalion:

1 Xuyen Moc: Constructed one each 306 SF cement block administration building; constructed one each 560 gallon per day leaching field, and installed an in-line chlorinator.

2 Long Le: Constructed one each 96 SF latrine/shower, installed 560 gallon per day septic tank with drainage field, constructed 200 LF sewage collection facility and constructed 100 SF of water distribution.

3 Duc Thanh: Constructed one each 432 SF cement block covered storage building. This project was started 18 August 1969 and all phases were completed by 13 September 1969.

(d) 807-0302-0-01, III CTZ MACV Advisor Facilities, Nhon Trach, Company B, 92nd Engineer Battalion: Constructed 782 SF concrete block billets, 44 SF latrine, 136 SF covered storage area and installed 1.4 TG sewage system. The project started 18 September 1969 and was completed 31 October 1969.

(4) Minimum Essential Equipment Projects: 391-5310-0-20, MER for 146th Aviation Company, LTN, Company D, 92nd Engineer Battalion: Provided necessary skilled personnel to install cold water service for two existing latrine/shower buildings. Project was started 1 October 1969 and completed 4 October 1969.

(5) LOC Projects: LC 159-68-007, Xom Tan Quarry, Company C, 92nd Engineer Battalion: Prepared site and installed 225 TPH pioneer crushing plant; operated crushing plant to provide crushed rock for Long Binh Post and surrounding areas. This project was in operation under this directive number from 1 February 1969 to 31 October 1969.

FOR OFFICIAL USE ONLY

EGBD-OP

SUBJECT: Operational Report - Lessons Learned, 92d Engineer Battalion
(Construction), Period Ending 31 October 1969, RCS CSFOR-65 (R2)

(6) Base Construction Projects Completed:

(a) CD 43-229-01-T-5S, Post Facilities, LBP, 41st Engineer Company (PC): Constructed 60' x 12' grease rack, complete with handrails and curbing. The project was started on 28 July 69 and completed on 24 Aug 69.

(b) 543-0305-0-01, BOQ, 54th Arty Gp, LBN, 92d Engineer Battalion: Provided technical advice and assistance for the self-help construction of a 20' x 48' concrete pad and erection of a Pascoe Building. The project was started on 22 July 69 and completed on 7 Sep 69.

(c) 543-0304-0-01, Repair of Dolphins at Cogide Ammunition Barge Site, 41st Engineer Company (PC): Extended the height of existing piles and repaired and replaced bumpers and decking on three dolphins at the Cogide pier. A total of 5,190 USMH were expended on this project. The project was started 1 July 69 and was completed 23 Aug 69.

(d) GD 159-95, Batch Plant, Company A, 92d Engineer Battalion: Designed, constructed and operated a concrete batch plant to provide concrete for Long Binh Post and surrounding areas. This project under current directive number has been in operation since May 1969 and was terminated 31 Oct 69.

(e) 66-52DC-159, Phase I Vung Tau POL Facility, Company D, 92d Engineer Battalion: Designed and constructed a manifold system to include construction of four (4) 8-inch pipelines on a contractor constructed POL jetty, constructed feeder lines for three storage tanks, and constructed feeder lines for POL fill stands. The project started 15 Sep 69 and was completed 31 Oct 69.

(7) Base Construction Projects Suspended: Letter, EGB-OP, HQ, 159th Engineer Group, 26 August 1969, subject: Suspension of Base Construction.

(a) CD 46-217-06-T-PE, POL Storage Tanks, Company D, 92d Engineer Battalion: Erected two (2) 500 BBL bolted steel POL Tanks before project was officially suspended. Project was 36% complete at the time of suspension.

(b) 546-0301-0-01, Maintenance Facility, LTN, Company D, 92d Engineer Battalion: Constructed one each 2000 SY penneprimed hardstand. The project was started on 19 Aug 69 and the hardstand was only facility constructed before suspension.

EGBD-OF

SUBJECT: Operational Report - Lessons Learned, 92D Engineer Battalion
(Construction), Period Ending 31 October 1969, RCS CSFOR - 65 (R2)

(c) CD 573-0305-0-01, Latrine Facility, Pershing Field, Saigon, 92nd Engineer Battalion: No materials or effort were expended on this project before suspension.

(d) CD 46-234-01, Cantonment and Operational Facilities, 303rd GS Co, LTN 92nd Engineer Battalion: No materials or effort were expended on this project before suspension.

(e) 546-0302-0-01, Aviation Operational Facilities, LTN, 92nd Engineer Battalion: No materials or effort were expended on this project prior to suspension.

(f) CD 46-226-01, Cantonment Facilities, Long Thanh North, Company D, 92nd Engineer Battalion: Completed 2 each 20' x 96' BEQ's, standard tropical, one story billets. The project was started 21 July 69 and the two (2) BEQ's were completed on 21 August 69. Project was 75% complete when it was suspended.

(g) CD 43-234-11-T-7S, 266th S&S Bn Storage Shed, 92nd Engineer Battalion: No materials or effort were expended on this project prior to suspension.

(h) CD 43-381-07-159, Ammo Maintenance Facility, Long Binh North, 92nd Engineer Battalion: No materials or effort were expended on this project prior to suspension.

(i) CD 07-231-03-T-7S, Aviation Support Facilities, Bien Hoa, 92nd Engineer Battalion: No materials or effort were expended on this project prior to suspension.

(8) Base Construction Projects Suspended: VOCO, 159th Engineer Group.

(a) CD 43-280-01-T-7S, Outdoor Recreation Facilities, Company D, 92nd Engineer Battalion: The only facilities constructed under this directive were two (2) each 56' x 100' basketball courts. This work was accomplished in the period 5 Nov 67 - 16 December 67. No additional facilities have been constructed since that time.

(b) CD 87-237-02, Airfield Pavement, Vung Tau, 92nd Engineer Battalion: No work was accomplished on this project by this unit. Requested that project be cancelled by user's request.

(9) Revolutionary Development Support: None.

EGBD-OP

SUBJECT: Operational Report - Lessons Learned, 92d Engineer Battalion
(Construction), Period Ending 31 October 1969, RCS CSFOR-65 (R2)

(a) 243-5872-0-20, Berm Construction - Plantation, 100th Engineer Company (FB): Provided equipment for construction of berms for rifle range. Hauled 1010 yards of earth to jobsite and had equipment working at jobsite for 15 days. The project was started on 9 September 1969; was 95% complete at the end of the reporting period.

(b) 243-5686-0-20, Construction of SOC, 92d Engineer Battalion: Provided Technical Assistance to 53d General Support Group for construction of 20' x 60' Sector Operations Center. This self-help project started 16 June 1969 and is 96% complete.

(c) 243-5729-2-23, Maintenance of Base Camp Perimeter, LBN, 92d Engineer Battalion: Maintained existing defensive works, such as defensive wire, minefields, berms, bunkers and fencing. Included in this project is a new 70-man reaction force bunker now under construction. The project started 15 September 1969 and is a continuous project.

(d) 243-5732-0-20, Maintenance of Base Camp Perimeter, Xom Tam Quarry, Company C, 92d Engineer Battalion: Maintained existing defensive security system around the perimeter of Xom Tam Quarry. This project started 2 July 1969 and is a continuous project.

(e) 159-68-233, Trang Bom Tank Range, Company B, 92d Engineer Battalion: Hauled, spread and compacted 22,274 CY of laterite for pad and roadways. Upgraded 1,295 meters of roadway and installed 136' of culvert during reporting period. Project delayed because of weather and deadline of critical equipment. The project started 20 February 1969 and is 92% complete.

(f) 246-5801-0-20, Repair A/C Revetments, Company D, 92d Engineer Battalion: Completed setting steel vertical stiffeners for lateral support and installation of drainage structures through twenty (20) aircraft revetments. Completed repair of top of all revetments and prefabrication of 21 ea, 24-man bunkers. Completed erection of 20 bunkers. Filled 10 bunkers with earth and completed all work on three POL Bladder Berms. The project started 7 August 1969 and is 90% complete.

(g) 243-5839-0-20, Engineer Support, Long Binh, Company B, 92d Engineer Battalion: Hauled approximately 80 CY of the required 150 CY to jobsite for fill of revetments around billets by user. Project will be completed in accordance with user's request. Project started 15 August 1969 and is 55% complete.

EGBO-OP

SUBJECT: Operational Report - Lessons Learned, 92D Engineer Battalion
(Construction), Period Ending 31 October 1969, RCS CSFOR - 65 (R2)

(h) 243-5867-0-20, Sanford Airfield Improvements, Company B, 92nd Engineer Battalion: Completed grading and compaction and penoprining of a 35,000 SF parking apron, completed prefabbing of eleven, eleven foot revetments. Erected 8 revetments and completed installation of walers and tie wires on six of them. The scope of this project has been increased twice which has required adjustment of EDC. The project was started 10 September 1969 and is 61% complete.

(i) 243-5510-1-23, BOQ Revetments, Long Sink Post, 100th Engineer Company (FB): Started prefab of revetments in company area, 4 of 5 revetments complete fifth revetment 95% complete. The project started 10 July 1969 and is 90% complete.

(j) 273-5910-0-20, Technical Assistance, Ben Luc, 100th Engineer Company (FB): Provided two NCO's to 30th ARVN Engineer Group to give technical assistance for removal and classification of the Ben Luc Bridge. Hauled and turned into depot approximately 40% of bridging from the Ben Luc Bridge. The project started 3 September 1969 and is 63% complete.

(k) 159-68-287, Maintenance Hardstand 303rd, Company D, 92nd Engineer Battalion: Improved drainage and started leveling site. Project delayed due to higher priority work. The project started 22 September 1969 and is 5% complete.

(l) 246-5830-0-20, A/C Revetments, Bearcat, Company D, 92nd Engineer Battalion: Started prefabbing five each CH-13 revetments. The project started 29 October 1969 and is 5% complete.

(m) 273-5461-2-23, Bridge Defense, Binh Loi Bridge, 41st Engineer Company (PC): Removed damaged batter piles and drove necessary new piles for fender system. Drove nine (9) 120' piles, spliced 31 section of pile and prefabricated 12 walers. Completed fender system on south side of bridge. Started work on north side of bridge. The project started 27 September 1969 and is 82% complete.

(n) 291-5559-0-20, Bridge Security Maintenance, 41st Engineer Company (PC): Chu Y Bridge - Straightened bracing, welded horizontal braces, replaced one section of chain link fence and replaced concertina wire. Fish Market Bridge - Placed new pipe bracing and extensions, replaced and mended deteriorated sections of chain link fence and placed new concertina fill around two central piers. Phu Cuong Pier Protective System - Fabricated and replaced three (3) missing knee braces, repaired sheared connector plate on pier "L" float, also repaired damaged pier protective decking and damaged fender system. Nha Be Bridge - Made reconnaissance to estimate extent of repair required. Dong Nai PPS - Made reconnaissance to determine extent of repairs required. The project started 10 October 1969 and is continuous.

EGBD-CF

SUBJECT: Operational Report - Lessons Learned, 92D Engineer Battalion
(Construction), Period Ending 31 October 1969, RCS CSFOR - 65 (R2)

(o) OS 159-68-247C, Rach Cat & Cau Ganh Bridge FPS, 41st Engineer Company (FC): Completed fender system located at pier # 2, south side of Cau Ganh Bridge. Removed damaged piles and drove 3 new standoff piles at Cau Ganh. Completed repair of standoff on pier 2. Completed repair on pier 1. Repaired crossbeam on damaged collar. Project stopped due to unusual tidal conditions on Dong Nai River caused by the heavy monsoon rains. Will attempt to restart project when tidal activity returns to normal. The project started 19 May 1969 and is 67% complete.

(3) MACV Project Active at end of Report Period: 887-0302-0-01, III CIZ MACV Advisor Facility Upgrade, Long Hai, Company D, 92nd Engineer Battalion: Hauled 1100 CY of fill to jobsite. Transported equipment and material to jobsite. The project started 31 October 1969 and is 4% complete.

(4) MER Project Active at end of Report Period: 159-68-014, MER for 378th Maint Support Company, 92nd Engineer Battalion: Stripped and removed top soil and cut ditches to improve drainage. Hauled, graded and compacted 1140 CY of laterite to put 4-6" lift on pad. Peneprimed 45,000 ft of pad. Project delayed because of higher priority projects. The project started 29 Aug 69 and is 92% complete.

(5) Line of Communication Projects Active at end of Report Period:

(a) 98-201-15-T-MA, LOC Upgrade and Restoration, Company B, 92nd Engineer Battalion: Installed 120' of 24" culvert across MSR 25 and three 20', 12 inch culverts under railroad tracks to correct drainage problems. This is a continuous project.

(b) 417-5302-0-20, Site Preparation and Construction of Facilities, Xom Tam, Company C, 92nd Engineer Battalion: Prefabricated stands for three conveyors and installed conveyors. Poured 1200 SF Concrete pad and placed cone crusher in place on pad. Prefabricated and installed chutes and wear plates on conveyors and hoppers. Completed all electrical hookups. Made test runs and necessary adjustments. This project started 29 Sep 69 and is 50% complete.

(c) 417-5301-0-20, Site Preparation and Construction of Facilities, Xom Tam Asphalt Plant, Company D, 92nd Engineer Battalion: Levelled area, relocated berms, hauled and compacted laterite for pad. Hauled out 5100 CY of spoil. Improved drainage and upgraded roadway. Poured three headwalls. Completed pouring of concrete main pad and peneprimed roadways. Installed 60' of 12" culvert and 60' of 24" culvert. Hauled 900 CY of rock to upgrade roadway. The project started 27 Sep 69 and is 71% complete.

NOT REPRODUCIBLE

EGBD-OF

SUBJECT: Operational Report - Lessons Learned, 92D Engineer Battalion,
(Construction). Period Ending 31 October 1969, RCS CSFOR - 65 (R2)

(6) Base Construction Project Active at end of Report Period:
CD 46-228-01, Civilian Quarters, 34th GS Group, LTN, Company D, 92nd Engineer Battalion: Provide technical assistance and construction support for construction of 2 ea 20' x 96' Civilian BEQ's; one 660 SF BOQ and latrine/shower. The project started 29 April 69 and all facilities except the BOQ were completed by 31 October 1969. Project is 87% complete and is awaiting possible termination notification.

(7) Revolutionary Development Support: None.

5. Logistics

a. Construction Materials:

(1) Plywood is in short supply and this short supply has at times caused serious problems on projects requiring extensive formwork for concrete construction. Corrugated metal has been utilized to some extent as a substitute for plywood in forms.

(2) Larger size lumber such as 10 x 10 and 12 x 12 is also difficult to obtain in sufficient quantity.

(3) The shortage of lumber, and the time required to determine its location and procurement from various sources in beginning to hamper construction operations.

b. TO&E Equipment: Critical shortages are 72 general mechanics tool sets, one (1) 1000 gal water distributor, two 20-ton cranes, one sheepsfoot roller, a contact maintenance set and a No. 1 shop set. All have been on requisition for some time and are still on confirmed valid requisitions.

6. Maintenance:

a. During the last quarter three companies failed their initial CMMI inspections and one passed. One company failed a reinspection and subsequently passed a total re-inspection.

b. A continued shortage of repair parts for all quarrying and crushing equipment has hampered rock production at Xom Tam Quarry. An ASL and PLL based on anticipated and experienced demands for all crushing, hauling and drilling equipment has been prepared and forwarded to higher headquarters.

c. The battalion has experienced a large number of cracked steering arms on ten ton tractors. During the last thirty days of the quarter, 19 of 26 ten ton tractors have been deadlined for this item. Seven replacement steering arms were received by the end of the quarter. Furthermore, a new improved version has been requisitioned and should arrive at this location in one or two weeks.

EGBD-CP

SUBJECT: Operational Report - Lessons Learned, 92D Engineer Battalion
(Construction), Period Ending 31 October 1969, RCS CSFOR - 65 (R2)

Section 2. Lessons Learned: Commander's
Observations, Evaluations and Recommendations

1. Personnel: None.

2. Intelligence: None.

3. Operations:

a. Acquisition of Land Use Concurrences for major projects.

(1) Observation: Assignment of a recent priority mission of Construction of secondary roads throughout this unit's ACR included instructions assigning responsibility to this battalion for obtaining land use concurrences and rights of way agreements for all programmed secondary roads and laterite pits.

(2) Evaluation: Real estate usage is a sensitive subject within the Republic of Vietnam and all necessary precautions must be taken to preclude future claims against the U.S. as well as damage to present good relations. This battalion has neither a G-5 or real estate function and therefore does not possess the capability to efficiently perform such activities.

(3) Recommendation: Prior to, or in conjunction with the issuance of directives for large projects in which real estate is a major factor, a headquarters of sufficient seniority and provided with a G-5 or real estate capability should handle all real estate matters to preclude possible embarrassment to the U.S. Government.

b. Selective Loading of Blast Rock.

(1) Observations: A requirement was received for a large quantity of blast rock from the battalion operated quarry. However, the maximum size rock needed could not be larger than 8". Some method was required to eliminate the over sized rock.

(2) Evaluation: The locally fabricated item described below was successfully used to fulfill the requirement.

(3) Recommendation: An improvised 10' x 10' screen with 8 inch mesh was manufactured on site. A 12 ton crane lifted this screen onto the bed of a dump truck; then a front loader dumped blast rock onto the screen. The crane was used to agitate the screen and to lift the screen off the truck bed. The front loader was then utilized again to tip the screen and to spill the oversize rock into a stockpile.

EGBD-OF

SUBJECT: Operational Report - Lessons Learned, 92D Engineer Battalion
(Construction), Period Ending 31 October 1969, RCS CSFOR - 65 (R2)

4. Organization: None.

5. Training: None.

6. Logistics: Explosives for quarry blasting.

a. Observations: In June 1969 this unit conducted a test to determine the feasibility of using pelitol for blasting at Xom Tam Quarry.

b. Evaluation: The test proved conclusively that pelitol is more efficient an explosive than military dynamite for use at Xom Tam Quarry, and it was suggested at that time that Pelitol be placed into the army supply system. To date, Pelitol is not available to this unit.

c. Recommendation: That reconsideration be given to placing pelitol into the army supply system, in this theatre of operations.

7. Communications: None.

8. Material: MCA/LOC Special Purpose Equipment.

a. Cone Crusher:

(1) Observation: A shortage of repair parts for low density equipment has seriously hampered rock production at Xom Tam Quarry.

(2) Evaluation: The purchase of MCA/LOC special purchase equipment has been a great boon to the LOC program, but to put certain items such as CONE CRUSHERS on a production status without an adequate supply of repair or spare parts on hand is courting disaster. This situation has caused the gauge dashboard of the cone crusher above to be useless. While the parts affected are on order, to presently operate the equipment requires time consuming pre-operational checks which would not normally have to be done were the gauges working.

(3) Recommendation: Adequate spare and repair parts should be provided with MCA/LOC equipment.

EGBD-OF

SUBJECT: Operational Report - Lessons Learned, 92D Engineer Battalion
(Construction), Period Ending 31 October 1969, RCS CSFCR - 65 (R2)

6. Transit Mixer.

(1) Observation: Issue of MCA/LCC equipment to using units without the application of approved MWO's and approved EIR's can result in damaging failures.

(2) Evaluation: Belts on the flange yoke of the hydraulic drive power take-off of the transit mixer should be tightened to a specific torque according to an approved EIR. This EIR was not applied by Dynalectron to a transit mixer issued to this unit and caused a failure which resulted in inability to rotate the drum to empty the load. When such a failure occurs, there is no way to remove the concrete from the drum except by use of a jack hammer.

(3) Recommendation: MWO's and EIR's should be applied by Dynalectron prior to issue of equipment to using units.

9. Maintenance: Difficulty in obtaining repair parts for non-standard equipment, notably engines for rock crushers.

a. Observation: A continuing shortage of repair parts for low density high cost equipment has seriously hampered rock production at Xom Tam Quarry. This shortage is intensified because a large number of non-standard repair parts are not properly identified and shipped to the using unit.

b. Evaluation: On 23 September 1969 the crank shaft in the GM V8-71 engine on the 42 VDE Pioneer Rock crusher broke. This command was informed that replacement engines were not available in country and would have to be ordered from CCNUS. This solution was highly unsatisfactory as the downtime for the crushing plant would be at least 30 days. To forestall any such lengthy downtime a tank engine similar to a GM V8-71 engine was obtained. This engine required extensive modification since the heads, governor assembly, blowers, and direction of rotation were not the same as the rock crusher engine. After a week of working double shifts the battalion's third echelon maintenance shop converted the tank engine to a rock crusher engine. The engine has performed satisfactorily since 5 October 69. On 15 October 1969 a V8-71 rock crusher engine was found in a large unmarked box in the 506th field depot. The shipping data indicated that it had been purchased on 29 November 1968. The engine was the same engine that the battalion maintenance shop had reconstructed from a tank engine.

EGBD-OP


SUBJECT: Operational Report - Lessons Learned, 92D Engineer Battalion
(Construction), Period Ending 31 October 1969, RCS CSFOR - 65 (R2)

c. Recommendation:

(1) That HQ, USARV Engineer Troops in Vietnam be permitted to set up a liaison with 1st Logistical Command for the express purpose of identifying, obtaining and properly distributing non-standard repair parts.

(2) That a system be devised for accounting for non-standard, repair parts, i.e., those not having FSN.

1 Incl
Organizational Chart


WILLIAM A. ANDERSON
LTC, CE
Commanding

DISTRIBUTION:

- 2 - CINCUSARFAC, ATTN: GFCP-DT (Air Mail)
- 3 - CG, USARV, ATTN: AVHGC-DST (Courier)
- 15 - CO, 159th Engr Gp, ATTN: EGB-OP
- 4 - CG, 20th Engr Bde, ATTN: AVBI-CHCFS

FOR OFFICIAL USE ONLY

EGB-OP (15 Nov 69) 1st Ind
SUBJECT: Operational Report - Lessons Learned, 92nd Engineer Battalion
(Construction), Period Ending 31 October 1969, RCS CSFOR - 65 (R2)

DA, HQ, 159th Engineer Group, APO 96491 22 November 1969

TO: Commanding Officer, 20th Engineer Brigade, ATTN: AVBI-OS, APO 96491

1. Submitted in accordance with USARV Regulation 525-15, dated 13 April 1969.
2. Comments are made on the following paragraphs:

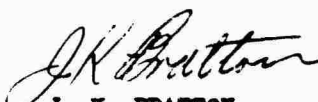
a. Section 1, paragraph 5a: Indications are that shortages of key Class IV materials will have a greater impact on construction projects in the months ahead.

b. Section 1, paragraph 6b: Under the IMG follow-on program units are to be force issued repair parts for the industrial sites. USARV S&M branch developed six month consumption data for most items; this ASL has been returned to the unit for action.

c. Section 2, paragraph 6: This headquarters has forwarded a request for pelitol to higher headquarters. A current contract for this item is under review at USARV S&M for possible expansion to meet this request.

d. Section 2, paragraph 8a: The COR for Dynelectron has been contacted concerning establishment of an ASL for LOC equipment on hand.

e. Section 2, paragraph 8b: Concur that MWO's and EIR's required should be applied prior to issue. This does not appear to be a significant problem as the number of MWO's and EIR's acquired for off the shelf purchases is quite small.


J. K. BRATTON
COL, CE
Commanding

CF:
CO, 92nd Engr Bn

AVBI-OS (15 Nov 69) 2nd Ind
SUBJECT: Operational Report - Lessons Learned, 92nd Engineer
Battalion (Construction), Period Ending 31 October 1969,
RCS CSFOR-65 (R2)

DA, HEADQUARTERS, 20TH ENGINEER BRIGADE, APO 96491 07 DEC 1969

TO: Commanding General, United States Army Vietnam, ATTN: AVHRC-
DST, APO 96375

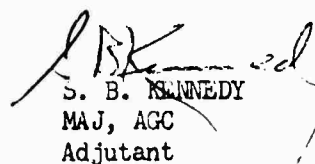
1. Submitted in accordance with USARV Regulation 525-15, dated
13 April 1968.

2. This headquarters concurs with the submitted report with the
following comments:

a. Section II, paragraph 6, page 16: A letter to CG, USARV,
ATTN: AVHEN-CM, dated 31 November 1969 from this headquarters,
requested that pelitol be provided for quarry operations. To date
none has arrived in country.

b. Section II, paragraph 8b, page 17: There is no emergency
EIR in existence for the transit mixer PTO drive shaft. In
addition, uinton-Budlong is responsible for deprocessing equipment
rather than Dynalectron. There are several ways to remove concrete
from the mixer if a PTO shaft fails. These include substitution of
a PTO shaft from another mixer, manually scooping the concrete out,
saturate and stir with water, or disconnecting the drive and
turning the drum manually.

FOR THE COMMANDER:


S. B. KENNEDY
MAJ, AGC
Adjutant

CF:
CO, 159th Engr Gp
CO, 92nd Engr Bn

AVHGC-DST (15 Nov 69) 3d Ind

SUBJECT: Operational Report - Lessons Learned, 92d Engineer Battalion
(Construction) Period Ending 31 October 1969, RCS CSFOR-65 (R2) (U)

HEADQUARTERS, UNITED STATES ARMY, VIETNAM, APO San Francisco 96375 16 JAN 1970

TO: Commander in Chief, United States Army, Pacific, ATTN: GPOP-DT,
APO 96558

1. This headquarters has reviewed the Operational Report - Lessons Learned for the quarterly period ending 31 October 1969 from Headquarters, 92d Engineer Battalion and comments of indorsing headquarters.

2. Comments follow:

a. Reference item concerning "Construction Materials", page 14, paragraph 5a. Small dimension lumber has been in short supply. Supply status of plywood and small dimension lumber has improved substantially during the past forty five days. Continued improvement is anticipated. Large dimension lumber is not in short supply. In some cases it may be necessary to utilize substitute lumber sizes however. If assets are not available at the supporting depot, requisitions should be passed to the ICCV.

b. Reference item concerning "TO&E Equipment", page 14, paragraph 5b. The asset picture on 20 ton cranes is bleak. DA has been made aware of the problem and is taking corrective action. Other Engineer items indicated have been assigned project codes by DA, and every effort is being made to procure the items for release to units at the earliest possible date.

c. Reference item concerning "acquisition of Land Use Concurrences for major projects", page 15, paragraph 3a; concur. MACV Construction Bulletin 405-1-1, dated 30 Nov 68, prescribes responsibilities and actions with regard to real estate procurement. Construction projects initiated on real estate without proper approval can cause set backs in US-RVN relations.

d. Reference item concerning "Explosives for quarry blasting", page 16, paragraph 6; 1st Indorsement, paragraph 2c; and 2d Indorsement, paragraph 2a; concur. Procurement has been initiated and the pelitol is expected to begin arriving in RVN during April 1970. A review of requirements is underway to develop accurate forecasts of requirements.

e. Reference item concerning "Transit Mixer", page 17, paragraph 8b and 1st Indorsement, paragraph 2b; concur. Dynallectron has responsibility to apply MWO's to MCA LOC equipment; however, there are no MWO's or Emergency EIR's for the transit mixer. Unit was informed of proper preventive maintenance procedures to prevent loosening of bolts; methods to empty the mixer drum other than by jack hammering; and procedures to request MWO applications for other equipment.

15 JAN 1970

AVHGC-DST (15 Nov 69) 3d Ind

SUBJECT: Operational Report-Lessons Learned, 92D Engineer Battalion (Construction) Period Ending 31 October 1969, RCS CSFOR-65 (R2) (U)

f. Reference item concerning "Maintenance", page 17, paragraph 9; concur. USAFV Reg 700-24 authorizes each depot requisitioner an MRE for the purpose of identifying and expediting required items. Nonstandard, non-FSN repair parts are accounted for by manufacturer's code and part number.

FOR THE COMMANDER:



C. E. MICHELS

MAJ, AGC

Assistant Adjutant General

Cy Furn:
92d Engr Bn
20th Engr Bde

FOR OFFICIAL USE ONLY

GPOP-DT (15 Nov 69) 4th Ind

SUBJECT: Operational Report of HQ, 92d Engineer Battalion for Period
Ending 31 October 1969, RCS CSFOR-65 (R2)

HQ, US Army, Pacific, APO San Francisco 96558 27 JAN 70

TO: Assistant Chief of Staff for Force Development, Department of the
Army, Washington, D. C. 20310

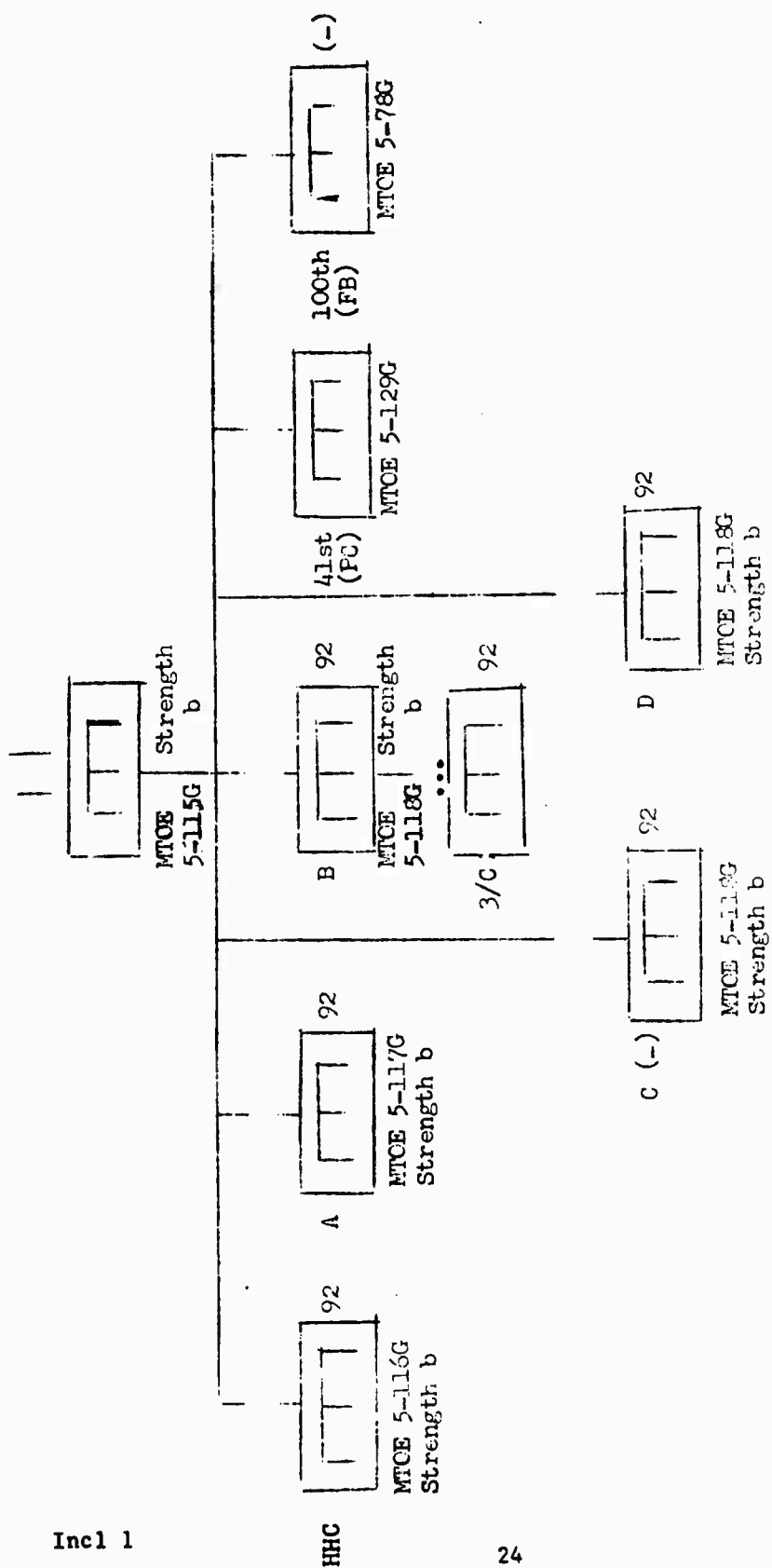
This headquarters concurs in subject report as indorsed.

FOR THE COMMANDER IN CHIEF:



E. L. SHORTT
CPT, AGC
Asst AG

FOR OFFICIAL USE ONLY



UNCLASSIFIED

Security Classification

DOCUMENT CONTROL DATA - R & D		
(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)		
1. ORIGINATING ACTIVITY (Corporate author)		2a. REPORT SECURITY CLASSIFICATION
HQ, OACSFOR, DA, Washington, D.C. 20310		FOR OFFICIAL USE ONLY
		2b. GROUP
3. REPORT TITLE		
Operational Report - Lessons Learned, HQ, 92d Engineer Battalion		
4. DESCRIPTIVE NOTES (Type of report and inclusive dates)		
Experiences of unit engaged in counterinsurgency operations, 1 Aug 69 to 31 Oct 69.		
5. AUTHOR(S) (First name, middle initial, last name)		
CO, 92d Engineer Battalion		
6. REPORT DATE	7a. TOTAL NO. OF PAGES	7b. NO. OF REFS
15 November 1969	27	
8a. CONTRACT OR GRANT NO.	8b. ORIGINATOR'S REPORT NUMBER(S)	
	694312	
b. PROJECT NO.		
N/A		
c.	9b. OTHER REPORT NO(S) (Any other numbers that may be assigned this report)	
d.		
10. DISTRIBUTION STATEMENT		
11. SUPPLEMENTARY NOTES	12. SPONSORING MILITARY ACTIVITY	
N/A	OACSFOR, DA, Washington, D.C. 20310	
13. ABSTRACT		